

California Advanced Homes Program – Overview

Presentation at CBIA April 4, 2014 Meeting

2013 Energy Code Program Redesign – Single Family



2014 Program Redesign Goals

Why redesign?

- Need for alignment with statewide 2020 ZNE Residential Goal
- 2013 Energy Code starts July 1, 2014
- Desire to coordinate with CA ZNE stakeholders:
 - ZNE Residential Action Plan
 - California Energy Commission
 - Codes & Standards
 - Emerging Technologies programs

Goals of redesign:

Core Program

- Make CAHP a vehicle for ZNE market transformation in the California building industry
- Include all energy end-uses within the home's envelope and exterior lighting attached to the building
- Create a program that can adapt to new technologies and energy measures
- Drive advanced building practices in all climate zones
- Simple for builders to participate, simple for utilities to implement

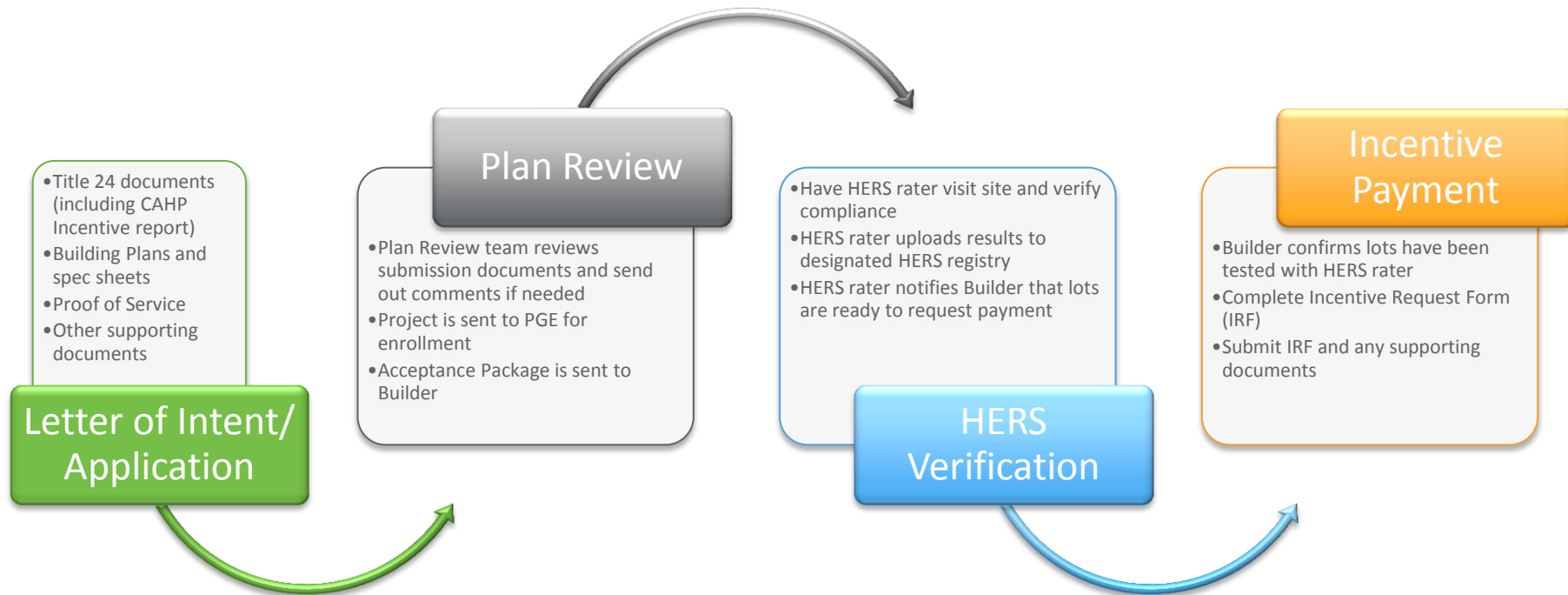
Special Program- ZNE Production Pilot Initiatives

- PG&E - Prove viability of ZNE ready concept by recruiting 10 ZNE ready homes into program in 2014 & verify through monitoring
- SCE, SDG&E and SCG – CAHP coordinating with Emerging Technologies and working with major builders to pursue potential ZNE individual homes and/or communities

New and Emerging Technologies – approve and verify performance

2014 CAHP Participation Process

The CAHP Participation process will remain the same



CAHP Score – Adapted from CEC HERS II



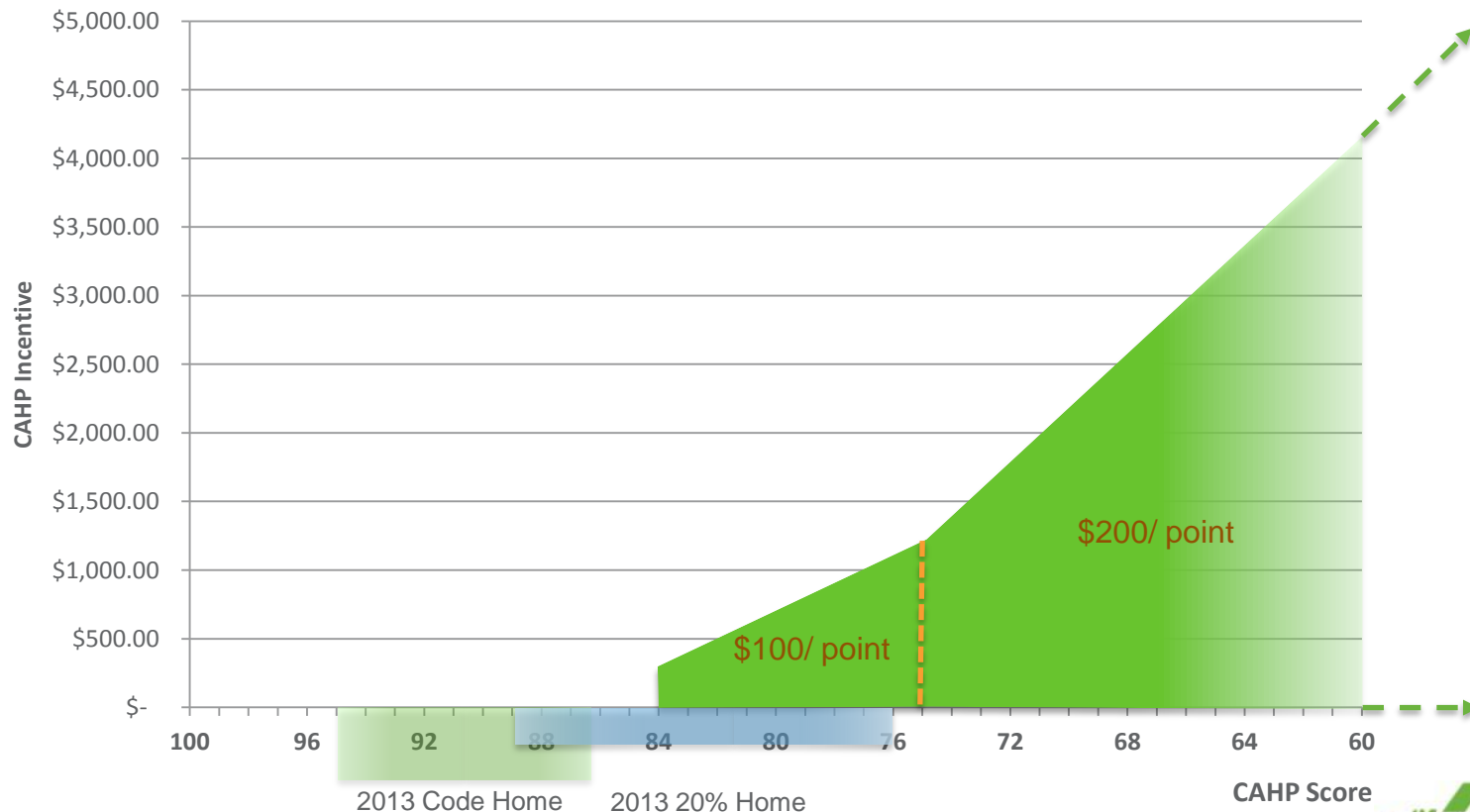
Benefits of the CAHP Score as a program metric

- Based on CEC HERS Design Rating - modifications made to align with 2013 T24
- Distributed generation not included
- Includes all energy end-uses (lighting, plug loads, appliances)
- Can be modeled using existing T24 compliance software
- Supports the CA regulatory infrastructure
- Relative energy use metric – equitable across climate zones
- Static score framework based on 100 for 2008 T24
- Simple to understand and implement

2014 CAHP Incentive Structure

- \$300 for program entry CAHP Score of 84
- \$100 for each point up to 75
- \$200 for each point thereafter

2014 CAHP Incentive Structure



CAHP Points

- **CAHP Points** reduce **CAHP Score** and increase incentive
- Incentivize energy efficiency measures not included in performance modeling: new technologies, coordinated program goals (C&S, ET, etc.), non-regulated load reduction, etc.
- Reward industry leading builders
- **Points in a draft stage**

Low Energy Use bonus (100,000 kTDV/year) – 5 CAHP Points

- Production Market attainable absolute energy goal

Ultra Low Energy Use bonus (60,000 kTDV/year) – 5 CAHP Points

- Correlated to the approx. energy output of a 3.5 kW PV panel

Future Code Preparation Package of Measures – 3 CAHP Points

DOE Challenge Home – 3 CAHP Points

Additional CAHP Points under development

ZNE/ZNE-Ready Production Pilot Initiative

ZNE Pilot Initiative details

- Each utility will sponsor a targeted number of production lots
- Incentivize agreed upon incremental costs
- Construction Management support from program implementer:
 - Design assistance
 - New methodology support
 - Permitting and building department interactions
 - Trades training, support and oversight when needed
- Extensive sub-monitoring of occupied unit for real energy use data
- Best practices case study basis



Thank you!

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